**Go Programming Language Notes**

**Defer:**

A defer statement defers the execution of a function until the surrounding function returns.

**Os.Exit:**

Note that unlike e.g. C, Go does not use an integer return value from main to indicate exit status. If you’d like to exit with a non-zero status you should use os.Exit.

**Command-line argument:**

<http://en.wikipedia.org/wiki/Command-line_interface#Arguments>

A **command-line argument** or [**parameter**](https://en.wikipedia.org/wiki/Parameter#Computing) is an item of information provided to a program when it is started. A program can have many command-line arguments that identify sources or destinations of information, or that alter the operation of the program.

When a command processor is active a program is typically invoked by typing its name followed by command-line arguments (if any). For example, in [Unix](https://en.wikipedia.org/wiki/Unix) and [Unix-like](https://en.wikipedia.org/wiki/Unix-like) environments, an example of a command-line argument is:

rm file.s

"file.s" is a command-line argument which tells the program [rm](https://en.wikipedia.org/wiki/Rm_(Unix)) to remove the file "file.s".

GO:

[Command-line arguments](http://en.wikipedia.org/wiki/Command-line_interface#Arguments) are a common way to parameterize execution of programs. For example, go run hello.go uses run and hello.go arguments to the go program.

os.Args provides access to raw command-line arguments. Note that the first value in this slice is the path to the program, and os.Args[1:] holds the arguments to the program.

You can get individual args with normal indexing.

**Filters:**

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| --- | --- |
| A *line filter* is a common type of program that reads input on stdin, processes it, and then prints some derived result to stdout. grep and sed are common line filters. |  |
| Here’s an example line filter in Go that writes a capitalized version of all input text. You can use this pattern to write your own Go line filters. |  |